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Examining Trends in Muslim Self-Identification and Mosque Attendance Among People of Turkish and Moroccan Descent in the Netherlands, 1997–2009

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This study examines the extent to which Muslim self-identification and mosque attendance have changed in the period 1997–2009 among people of Turkish and Moroccan descent in the Netherlands. Mainly trendless fluctuations are found. Overall, Muslim self-identification seems to very slightly increase and mosque attendance seems to very slightly decrease. We examined the extent to which factors that are important according to theories and previous research explain or enlarge these differences over time. The factors about which we hypothesize are largely unable to explain differences over time in Muslim self-identification and mosque attendance.

Keywords: *religious change, immigrants, Muslims, the Netherlands.*

INTRODUCTION

In the 1960s, Turkey and Morocco faced high unemployment while northwestern Europe witnessed a shortage of people willing to take low-skilled jobs. Thus began the migration of people from Turkey and Morocco to northwestern European countries, including the Netherlands (Den Exter 1993). The percentage of inhabitants of the Netherlands with at least one parent born in Turkey or Morocco grew from 3.21 percent in 1996 to 4.52 percent in 2012 (Statistics Netherlands 2013). Many people are interested in the answer to the question whether there is secularization or religious revival going on within this almost entirely Islamic group (De Graaf 2002; De Graaf and Te Grotenhuis 2008; Maliepaard 2012; Maliepaard, Gijsberts, and Lubbers 2012; Phalet, Gijsberts, and Hagendoorn 2008; Voas and Fleischmann 2012) and this is also the question we focus on. This question is substantively important for three reasons.

First, it is an established fact that the total population of the Netherlands has become less religious over the last several decades (De Graaf and Te Grotenhuis 2008; Statistics Netherlands 2009c). There has been substantial religious disaffiliation among both Protestants and Catholics (Becker and De Hart 2006; De Graaf, Need, and Ultee 2004). Less clear, however, is how religiosity has developed within the subpopulation of Turks and Moroccans. Do they contribute too to the secularization of the Netherlands?

A second reason for our interest in religious change among Dutch Turks and Moroccans is the fact that members of this subpopulation tend to call themselves religious and attend places of worship more often than other inhabitants of the Netherlands (Statistics Netherlands 2009a, 2009c). This also seems to be the case in Belgium (Smits, Ruiter, and Van Tubergen 2010) and Germany (Diehl and Koenig 2009; Tucci and Wagner 2006). Although Turkey has a strict separation of church and state while in Morocco religious and governmental affairs often go hand

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in hand, the populations of both Morocco *and* Turkey are highly religious in comparison to the Netherlands.

The third reason why it is important to examine religious change among Turkish and Moroccan immigrants in the Netherlands concerns the societal impact of their religiosity. For example, during the last decade it has been a popular and profitable political strategy for parties and candidates to emphasize issues about Muslim immigrants. Hostility on the part of Dutch natives toward Muslims also has manifested itself in the form of attacks on mosques. This apparent clash of cultures shows up as well in the overrepresentation of Moroccans among assailants of homosexuals (Buijs, Hekma, and Duyvendak 2008).

Maliepaard (2012), Maliepaard, Gijsberts, and Lubbers (2012), and Phalet, Gijsberts, and Hagendoorn (2008) previously studied change in several indicators of religiosity among Turks and Moroccans in the Netherlands between the years 1998, 2002, 2004, and 2006. These studies point in the direction of a decrease in Muslim self-identification and mosque attendance. These studies also determined to what extent these changes result from a changing composition of the migrant population as regards several individual and contextual characteristics. The authors conclude that the characteristics they take into account are unable to explain the decline in mosque attendance over the years.

Our purpose in this article is to describe and explain the trend in Muslim self-identification and mosque attendance among people of Turkish and Moroccan descent in the Netherlands in the period 1997–2009. We contribute to the existing literature in three ways. First, we reexamine results of previous studies using other data. An advantage of the data used in previous studies is that the surveys were specifically designed for immigrants so that Turks and Moroccans with a poor mastery of the Dutch language could be included. A disadvantage, however, is that the underlying cross-sectional surveys used in previous studies have quite different sampling designs. Some use individual samples, others use household samples, and some of the surveys sampled respondents from a small subset of cities. We are able to pool many more cross-sectional surveys with similar designs; our study therefore minimizes random fluctuations. Second, we study a longer time span than has previously been possible. Third, we take into account more factors that might explain changing levels of religiosity, particularly contextual characteristics.

We draw our data from the Permanent Survey of Living Conditions (POLS), which provides comparable and nationally representative data over time, and ask the following questions: Did Muslim self-identification and frequency of mosque attendance among people of Turkish and Moroccan descent in the Netherlands aged 12+ change in the period 1997–2009 and, if so, to what extent and in which direction? In which way does the trend among this subpopulation differ from the trend among other inhabitants of the Netherlands? To what extent do individual and contextual characteristics that tend to be correlated with religiosity explain over time differences in our subpopulation?

Theories and Hypotheses

Different theories in the sociology of religion adduce factors that influence a person's religiosity. If the degree to which these factors are present in a society changes, a shift in religiosity is to be expected. Next to these theories, results from previous studies will be used to formulate expectations. Our first two hypotheses deal with the nature of the trend in religiosity among people of Turkish and Moroccan descent and among other inhabitants of the Netherlands. Our other hypotheses are about factors that might influence the religiosity of people of Turkish and Moroccan descent.

The factors about which we hypothesize might explain over time differences in religiosity or make these differences come to the fore more strongly. In the former case, the fact that years differ from each other in the degree to which Turks and Moroccans are religious is (partly) due to differences between these years in the degree to which a certain factor is present among Turks

and Moroccans. In the latter case, the over time differences are larger when one looks at them for separate groups (groups with different scores on the specific factor) instead of for the group of Turks and Moroccans as a whole (the effect of year of the survey was masked by this factor: a suppression effect).

The Nature of the Trend

Previous research demonstrates increasing secularization of Turks and Moroccans in the Netherlands over the last 10 years. The same trend of secularization applies to other inhabitants of the Netherlands. Thus,

H1: We expect to observe a decrease in our two indicators of religiosity among Turks and Moroccans in the Netherlands.

H2: We expect to observe a decrease in religious self-identification and attendance among inhabitants of the Netherlands who do not belong to our study population.

Factors Related to Social Cohesion

Social integration theory (Durkheim 1897) holds that people who are more strongly integrated into a group with a certain norm are more likely to follow this norm. It may be assumed that Turks and Moroccans espouse more positive norms about Muslim self-identification and mosque attendance than other inhabitants of the Netherlands. People who are more strongly integrated into Turkish and Moroccan groups are therefore expected to have a higher likelihood of being Muslim and visiting a mosque. The presence of co-ethnics in the living environment is an indicator of the extent to which people are integrated in Turkish/Moroccan groups. Our decision to look at co-ethnics only is driven by the fact that Turks and Moroccans in the Netherlands are quite separate groups (e.g., when it comes to intermarriage) (Lucassen and Laarman 2009) that organize their mosques separately. Thus,

H3: Muslim self-identification and mosque attendance will be higher as there are more co-ethnics present in the municipality.

Previous research on similar groups is in line with this hypothesis (Driessen and Van der Slik 2006; Maliepaard 2012; Maliepaard, Gijsberts, and Lubbers 2012; Van Tubergen 2007). We can derive that if the degree to which this independent variable is present in our data increases our dependent variables will also increase and vice versa. It is commonly known that in the Netherlands during the last few decades, immigration, differential fertility levels, and increased segregation continually increased the probability of Turks and Moroccans of meeting co-ethnics in their living environments (Dagevos and Gijsberts 2007; Gijsberts and Dagevos 2007; Statistics Netherlands 2013).

According to social integration theory, it might also be predicted that if native Dutch inhabitants of the municipality in which a Turk or Moroccan lives are more religious, the Turk/Moroccan will be more likely to be religious as well. The argument is that even though native Dutch people attend different places of worship and in most cases adhere to another religion, their norms toward religious self-identification and attendance (as such) will be relatively positive. In such local contexts, Turkish/Moroccan immigrants might encounter fewer social obstacles to Muslim self-identification and mosque attendance. Therefore,

H4: We expect that people of Turkish and Moroccan descent who live in municipalities with more native Dutch religious adherents and attenders will be more likely to call themselves Muslims and go to mosque.

Van Tubergen (2006) finds support for a similar hypothesis in his analysis of immigrants in eight Western countries. We can derive that if the religiosity of the native Dutch portion of the population decreases over time (which seems obvious in light of the general trend toward secularization), Muslim self-identification and mosque attendance among Turkish and Moroccan people in the Netherlands will also decrease.

Social integration theory also leads to a hypothesis about the influence of parental country of birth. People whose parents were both born in Turkey or Morocco are more likely to be integrated in groups that hold relatively positive norms with respect to Muslim religiosity than people with only one parent who was born in Turkey or Morocco. Therefore,

H5: We expect children of two Turkish- or Moroccan-born parents to be more likely to call themselves Muslims and go to mosque.

An increasing number of people with only one parent who is born in Turkey or Morocco, which seems to be obvious because of the timing of the wave of migration and assimulation arguments, thus could cause a decline in religiosity.

According to social integration theory and previous research in general populations (Ruiter and Van Tubergen 2009; Te Grotenhuis and Scheepers 2001), living in a large municipality is correlated with low religiosity. According to the mechanism of social integration, norm compliance is stronger when social control is stronger. In cities, social ties are less intense, multiplex, and kin-based and networks are less dense and homogenous (Curtis White and Guest 2003). As a consequence, social control is more difficult. Therefore,

H6: Turks and Moroccans who live in more urban regions are less likely to call themselves Muslims and go to mosque.

If Turks and Moroccans increasingly live in larger cities, Muslim self-identification and mosque attendance should decrease. Although the degree of urbanization in a country changes slowly, it could be that the portion of the Dutch population in which we are interested has distributed differently across the country over the years. If this is the case, it could be a consequence of disproportional (internal) migration to more/less urban areas and fertility levels also could be correlated with degree of urbanization.

Thus far, we have hypothesized about factors that speak to the degree to which people are integrated into groups with certain norms regarding Muslim religiosity. Now we shift to two factors that might influence Turks' and Moroccans' willingness to associate with their own group: mosque attacks and anti-immigrant voting behavior. Although mosque attacks are not an everyday phenomenon, these events may be seen as tips of the icebergs. Moreover, even if mosque attacks occur randomly in different municipalities, their impact could be significant and long lasting for people whose own mosque was attacked. According to Coser (1956), conflicts between groups may increase intragroup cohesiveness and consequently the group's degree of religiosity. Connor (2010) indeed found that an unwelcoming receiving context is associated with higher religiosity among Muslim immigrants in Western Europe. Also, Fleischmann, Phalet, and Klein (2011) and Verkuyten and Yildiz (2007) found positive associations between perceived discrimination and strength of Muslim identification. This leads to the following hypothesis:

H7: Muslims who live in areas where a mosque has been attacked will be more likely to call themselves Muslims and go to mosque.

Over the last decade, the number of attacks on mosques in the Netherlands has varied heavily over time. Mosque attacks were especially prevalent in the months following the

September 11, 2001, attacks in the United States and the murder of Theo van Gogh in November 2004.[1]

Like mosque attacks, successful political campaigns by parties and candidates that oppose immigration and/or Islam might lead Dutch Muslims to feel an enhanced connection to their Muslim identity. Therefore,

H8: Muslims who live in areas where anti-immigrant parties do well at the polls will be more likely to call themselves Muslims and go to mosque.

Support for anti-immigrant parties varies over time. In 1998, these parties received less than 1 percent of the vote nationwide; the percentage peaked at 16 percent in 2010.

Educational Level

It has often been argued that a scientific, rational worldview diminishes religiosity (Berger 1967; Bruce 1999; Weber [1922, 1993]). If people notice that humankind is able to interfere with nature, that science serves to explain all kinds of natural phenomena, and that there are inconsistencies within and between religions, they may question the plausibility of the existence of a higher power and consequently lose their faith. Secular education makes it more likely that a person notices these things. Therefore,

H9: We expect that Turks and Moroccans with higher levels of education will be less likely to call themselves Muslims and go to mosque.

Previous research, both in general populations and about immigrants to the Netherlands, is in line with this hypothesis (De Graaf, Need, and Ultee 2004; Maliepaard 2012; Maliepaard, Gijsberts, and Lubbers 2012; Phalet, Gijsberts, and Hagendoorn 2008; Phalet and Haker 2004; Ruiter and Van Tubergen 2009; Te Grotenhuis and Scheepers 2001; Van Tubergen 2007). However, Fleischmann and Phalet (2012) do not find this negative effect for second-generation Turks in Amsterdam, Brussels, and Stockholm. We can derive that if the educational level of our subpopulation rises, their Muslim self-identification and mosque attendance will decline. Previous findings indeed suggest that the level of education of Turks and Moroccans in the Netherlands has increased in recent years (Statistics Netherlands 2009b, 2013; Tolsma, Coenders, and Lubbers 2007).

People could develop a more scientific and rational worldview not just through their own education, but also as a result of living in a well-educated environment. In municipalities with plenty of well-educated people, the probability of coming into contact with well-educated people is higher. This exposure could make one's worldview more rational, which according to scientific worldview theory (Berger 1967; Bruce 1999; Weber [1922, 1993]) should diminish religiosity. For example, De Graaf, Need, and Ultee (2004) find that over and above the effect of an individual's own level of education, the average level of education in the province where that individual lives affects the likelihood that he or she will leave the church.

H10: People living in municipalities with better-educated inhabitants should be less likely to call themselves Muslims and go to mosque.

It is commonly known that the population of the Netherlands has become better educated over the last few decades (Ganzeboom 1996), and this is also true for our research period (Statistics Netherlands 2013).

[1]Theo van Gogh was an anti-establishment Dutch filmmaker and an outspoken critic of multiculturalism and Islam. He was shot and killed on the streets of Amsterdam by Mohammed Bouyeri, a Dutch-Moroccan Muslim, on November 2, 2004.

Economic Status

Norris and Inglehart (2004) argue that if a person's basic existence is insecure, the more need he or she will have for rigid, predictable rules—and thus for religion. Experiencing challenging circumstances like war or poverty should increase religiosity. We assume that people with lower incomes are financially in a less secure position and hypothesize:

H11: People with lower incomes are more likely to call themselves Muslims and go to mosque.

This hypothesis is in line with Marx's ([1843] 1977) reasoning as well. The income of Turks and Moroccans could vary over the years because of improvements in their preparatory training and mastery of the Dutch language, but also because of changes in the state of the Dutch economy. Data show that both the labor market participation and the income of Turks and Moroccans in the Netherlands have increased over the last decade (Gijsberts and Dagevos 2007; Statistics Netherlands 2011, 2013).

Two Factors Related to Opportunities

For people who live in a municipality with a co-ethnic mosque, opportunities to attend are higher than for people who do not. Religious supply theory (Stark and Bainbridge 1987; Stark and Iannaccone 1994) posits that the higher the supply the greater the religious participation.

H12: We expect Turks and Moroccans who live in municipalities with a co-ethnic mosque to be more likely to call themselves Muslims and to go to mosque.

Only counting co-ethnic mosques is most realistic because Turks and Moroccans organize their mosques separately and in their own native languages. The first Turkish and Moroccan mosques in the Netherlands were built in the 1970s, and 421 existed in 2007 (Landman 1992; Van Oudenhoven et al. 2008). It thus seems likely that the percentage of Turks and Moroccans who have a mosque in their municipality would have increased. Opportunities to attend thus are likely to have increased, which according to our hypothesis would result in higher religiosity.

A second factor that influences opportunities is the amount of time people have available. After all, attending mosque requires time. The more time people spend on study and work, the less time that is left for religious activities. Therefore,

H13: People who spend more time on study and work will be less likely to call themselves Muslims and to go to mosque.

Although this expectation seems primarily relevant for mosque attendance, we also incorporate available time in our analyses of Muslim self-identification. Because all aspects of religiosity (time-consuming or not) are interrelated, available time could be an explanation of over time differences in Muslim self-identification as well. As mentioned above, the labor market participation of Turks and Moroccans in the Netherlands has increased in the last decade.

Gender

While for general populations it has been found that women are more religious than men (Collett and Lizardo 2009; De Vaus and McAllister 1987; Roth and Kroll 2007; Ruiter and Van Tubergen 2009; Stark 2002), Muslim prescriptions compel only men to attend mosque (Breuilly, O'Brien, and Palmer 1997; Horrie and Chippindale 1990). For Muslim immigrants in the United States (Ghaffari and Çiftçi 2010), second-generation Turkish and Moroccan immigrants in Antwerp and Brussels (Scheible and Fleischmann 2013), and Muslims in multiple countries

(Roth and Kroll 2007; Sullins 2006) it has indeed been found that men have a higher rate of mosque attendance than women. Findings of the three latter studies and also the findings Stark (2002) does for three predominantly Islamic nations show opposite gender gaps for religious attitudes and beliefs. However, since studies of populations similar to ours (i.e., people of Turkish and Moroccan descent in the Netherlands) have found men more religious in terms of attendance as well as attitudes (Maliepaard 2012; Phalet, Gijsberts, and Hagendoorn 2008), we hypothesize that

H14: Men will be more likely to call themselves Muslim and to go to mosque.

In general populations, the ratio of men to women seldom changes. For the population we study, however, there are reasons why this ratio could change over time. After all, in the 1960s it was Turkish and Moroccan *men* who initially came to the Netherlands to work. Many of them eventually also brought their wives from the countries of origin. Nevertheless, in our research period the percentage of Turkish and Moroccan women is still smaller than the percentage of men, and the percentage of women continues to increase. In 1996, the percentage of women taken as a percentage of the total group of people in the Netherlands with at least one parent who was born in Turkey or Morocco was 46.2 percent, whereas in 2012 it was 48.4 percent (Statistics Netherlands 2013).

Two Factors Related to the Wave of Migration

People born in the Netherlands have been exposed to a more secular society over the course of their lives. According to social integration theory, this experience should lead them to be less religious. Thus,

H15: Dutch-born people of Turkish and Moroccan descent will be less likely to call themselves Muslims and go to mosque.

Also scientific worldview theory and existential security theory would posit that living in the Netherlands stimulates religiosity to a lesser extent than living in Turkey and Morocco. In comparison to Turkey and (especially) Morocco, people in the Netherlands are intensely exposed to the scientific, rational worldview and experience a high degree of existential security. Research on Turks and Moroccans in the Netherlands shows that the second generation attends mosque less frequently than the first (Maliepaard, Gijsberts, and Lubbers 2012; Maliepaard and Lubbers 2013; Phalet, Gijsberts, and Hagendoorn 2008; Phalet and Haker 2004). Length of stay in the Netherlands has a (small) positive effect on attendance according to findings of Van Tubergen (2007, 2013), and Diehl and Koenig (2009) report generational stability among Turks in Germany in 2005/2006. The percentage of people of Turkish and Moroccan descent who are born in the Netherlands increases in our research period. In 2009, the size of the second generation exceeded the size of the first (Statistics Netherlands 2013). Furthermore, there could well be differences between immigrants who entered the Netherlands in different years with respect to their degree of religiosity when they entered the Netherlands. Whether someone is born in the Netherlands or abroad indicates the "immigrant cohort" to which he or she belongs. An additional reason to take into account whether someone is born in the Netherlands is, therefore, to control for "initial differences" as much as possible.

Although Turkey is a more secular country than Morocco, results of studies investigating the differences between Turks and Moroccans in the Netherlands have been mixed. Phalet and Haker (2004) and Van Tubergen (2007) both find that Moroccans have a higher probability of being Muslim than Turks. Maliepaard, Gijsberts, and Lubbers (2012), Phalet, Gijsberts, and Hagendoorn (2008), and Phalet and Haker (2004) all find that Turks are more likely than Moroccans to attend mosque, while Van Tubergen (2007) finds the opposite. These findings would seem to indicate

that Muslim self-identification is higher among Moroccans in the Netherlands while attendance is higher among Turks. We therefore hypothesize that

H16: People of Turkish descent will be less likely to call themselves Muslim than people of Moroccan descent.

H17: Turkish Muslims will be more likely to go to mosque than Moroccan Muslims.

It may be that there are differences between immigrants from Turkey and Morocco in terms of migration and fertility. As a consequence, the ratio of people of Turkish origin to people of Moroccan origin could vary over the years. It is important to take ethnicity into account in our study to take away differences between years in the degree of religiosity that existed when respondents (or their parents) entered the Netherlands. Figures from Statistics Netherlands (2013) show that there were more Turks in the Netherlands than Moroccans during our entire research period. Both of these groups have grown during the period under study, although the Moroccan group has grown faster.

Data and Measures

We use individual-level data from the POLS of Statistics Netherlands and enrich them with municipal-level data.[2] POLS, which has been fielded yearly since 1997, uses a multistage sampling design. First, municipalities were selected; thereafter, a representative number of individuals was drawn randomly from each municipality.[3] In each year, roughly 40 percent of those contacted declined to participate. The refusal rate is just slightly higher among second-generation Turks and Moroccans. The response rate for first-generation Turks and Moroccans is about 10 percent lower than that for second-generation Turks and Moroccans; this difference is due to poorer mastery of the Dutch language (Schmeets and van der Bie 2005). Compared with response rates for surveys used in previous studies, our response rates are a bit lower for the first generation and a bit higher for the second generation.

We are able to draw our subsample of Turkish and Moroccan inhabitants of the Netherlands because POLS respondents were asked about their own and their parents' countries of origin. We include respondents with at least one Turkish- or Moroccan-born parent.[4] For the analyses of religious attendance, we have an additional criterion. To be included in our analyses of people of Turkish/Moroccan descent, respondents must consider themselves Muslim; to be included in our analyses of other inhabitants of the Netherlands, respondents must belong to a religious denomination.[5]

Muslim self-identification. Each survey year, respondents were asked: "To which religious affiliation do you consider yourself to belong?" We contrast people who adhere to Islam (1) to others (0).

Mosque attendance. People affiliated with a religion were asked: "How often do you in general go to a church, mosque, or another religious meeting?"[6] They could answer "seldom/never," "less than once a month," "once a month," "2–3 times a month," and "at least once a week." Because change is likely to occur first among people with the highest levels of a particular behavior, we assign a 0 to the first four categories and a 1 to the latter category.

[2]For the municipal characteristics, we consistently used the municipal division on the first day of 2010.

[3]Number of respondents aged 12+ for each survey year: 31,092; 71,164; 38,252; 34,350; 33,837; 20,436; 23,230; 19,662; 8,570; 5,430; 9,978; 7,870; and 7,567, respectively.

[4]After this selection, our subsample *N*s for each survey year are 588; 1,074; 605; 624; 888; 459; 649; 459; 220; 142; 296; 197; and 196, respectively. These fluctuations reflect general fluctuations in the total number of POLS respondents.

[5]It is therefore possible that people who do not belong to our study population are Muslim and attend mosque.

[6]In surveys in the period 1997–2001, people were asked about their attendance at "church or other religious meetings." Thereafter, the formulation was "church, mosque or religious meetings."

Presence of co-ethnics in the municipality. We take into account the municipal percentage of co-ethnics (i.e., those with at least one parent born in Turkey/Morocco) on the first day of the year in which the survey data were collected. Data were derived from Statistics Netherlands (2013), which uses Dutch population registers.

Religious self-identification and attendance of native Dutch inhabitants of the municipality. Time-variant information on the religious self-identification and attendance of native Dutch inhabitants of municipalities is obtained through aggregation of the variable measuring whether someone adheres to a religion (0) or not (1) and the variable measuring how often someone attends a place of worship (0 = at least once a week, 1 = two to three times a month, 2 = once a month, 3 = nonmembers/seldom or never/less than once a month) from the POLS data. The mean number of native Dutch people in each year/municipality combination is about 50.

One or two Turkish/Moroccan parents. Respondents whose parents were both born in Turkey as well as respondents whose parents were both born in Morocco score 0; others score 1.

Urbanization. This variable measures the natural logarithm of the number of inhabitants of a particular municipality on the first day of the survey year. Data were obtained from Statistics Netherlands (2010).

Attacks on mosques in the municipality. We take into account whether in the last 24 months (we know which month each respondent was interviewed) there has been an attack (e.g., arson, vandalism, plastering) on a mosque in the municipality respondents live in (1) or not (0). Information originates from an internal data collection extended by information on mosque attacks gathered from LexisNexis, the Anne Frank House, and Jaap van Donselaar (Leiden University).

Municipal percentage of votes for anti-immigrant parties. For every election year we added up the percentage of votes cast for candidates for the House of Representatives who represented anti-immigrant parties in each municipality.[7] We interpolated these data for the years in which there were no elections for the House of Representatives. In 1994, 1998, and 2002, we included one party (the Centre Democrats in 1994 and 1998 and the Pim Fortuyn List in 2002). In 2003 and 2010, we included two parties (Pim Fortuyn List and DeConservatieven.nl in 2003; the Party for Freedom and Proud of the Netherlands in 2010). In 2006, we included four (the Party for Freedom, One NL, Fortuyn, and the Party for the Netherlands).

Educational level. We distinguish among people with no education beyond elementary school (0), those who completed lower vocational or lower secondary school (1), those who completed middle- or higher-level secondary school or middle-level vocational school (2), and those who completed higher-level vocational school or university (3). The constructed variable is ordinal in nature, but for reasons of parsimony we treat it as a continuous variable.

Municipal educational level. Figures on the mean educational level of inhabitants aged 15–65 of municipalities with 10,000+ inhabitants were derived from Statistics Netherlands (2013). These figures are based on the Dutch Labor Force Survey. Within these municipalities, about 4 percent of the values were missing. In these cases we interpolated the values of the surrounding years. If values in the 1997 or 2009 data were missing, we filled in the value in the nearest year with a valid score. For each year/municipality combination we made the following calculation: proportion medium + (proportion high × 2). After these operations, Turks and Moroccans living in municipalities with less than 10,000 inhabitants still have no valid score. We made use of aggregation of respondents aged 15–65 in the POLS survey data to give them a valid score and not lose this specific group of people.[8]

[7]Rozenburg has belonged to the municipality of Rotterdam since March 2010. We use the municipal division of the first day of 2010, and the 2010 elections were in June. We therefore were not able to distinguish between Rozenburg and Rotterdam. For every year, Rozenburg scores the same on the election variable as Rotterdam.

[8]Also for this variable we made the calculation: proportion medium + (proportion high × 2). The correlation between the calculation based on the Statline data and on aggregation of the POLS data is .735. The mean of the variable based

Economic status. We measured economic status with annual household income approximately two years ago in increments of 10,000 euros.

Presence of a co-ethnic mosque. Starting with a list of mosques compiled by Nico Landman (Utrecht University), we collected time-variant data on the presence of a Turkish/Moroccan mosque ourselves. Landman's list already contained information about the ethnic affiliation/background of each mosque (mosques in the Netherlands usually aim at people from a specific ethnic background). In cases where a mosque includes both Turkish and Moroccan people in the organization, both Turks and Moroccans score 1 in the year/municipality combination concerned. For each Dutch municipality we detected when the first Turkish and when the first Moroccan Muslim places of worship were established and, if applicable, ceased to exist. Year/municipality combinations without a Turkish/Moroccan mosque score 0, other combinations 1. Places of worship that are not open all the time (e.g., only on Fridays or during Ramadan) do not receive a score of 1 for the year/municipality combination concerned. Furthermore, if a place of worship was established during (for example) 1998, 1998 scores 0. After all, in 1998 the mosque had not been open for the whole year.

Available time. People who spend 30 hours or more on work and/or study score 1, people who do not, 0.

Gender. Male respondents score 0, female respondents, 1.

Migration generation. Respondents who were born in the Netherlands score 1, respondents who were born abroad, 0.

Turkish or Moroccan origin. Respondents with one or more Turkish-born parents score 0; respondents with one or more Moroccan-born parents score 1.

We applied a multiple imputation procedure rather than deleting all cases with one or more missing variables. This procedure enables us to use as much available information as possible. Furthermore, it is argued that listwise deletion could lead to biased estimates. After the five imputed data sets were obtained, we deleted cases that initially had a missing value on the dependent variable (Von Hippel 2007). After estimating our models using each of the five separate datasets, we applied Rubin's (1987) rules to derive the final parameter estimates. Table 1 presents the number of valid scores, ranges, and standard deviations for the pooled dataset, means for each survey year separately, and a global description of the trend in the last column.

In the theory section, we discussed on the basis of previous findings the changes over time in the degrees to which factors we hypothesize about are present in our subpopulation. Table 1 shows on the basis of our data the degrees to which factors which we hypothesize are present in our subpopulation. We will proceed to predict a trend in our dependent variable on the basis of the trends in all of our independent variables and the expectations presented in H3–H17. We calculated a mean degree to which all factors we hypothesize about are present for each year. We hereby take into account the expected direction of the effect of a factor. This means that we coded each variable in such a way that a high score represents high religiosity according to our hypothesis. Thus, for example, we had to invert the urbanization variable because we expect *high* levels of urbanization to coincide with *low* religiosity. We also rescaled the underlying variables to make them similar with respect to minimum and maximum score. We calculated separate means for Muslim self-identification and mosque attendance. After all, we take into account different variables for H4, and expect different effects of Turkish versus Moroccan origin on both dependent variables in H16 and H17. The patterns of Muslim self-identification and mosque

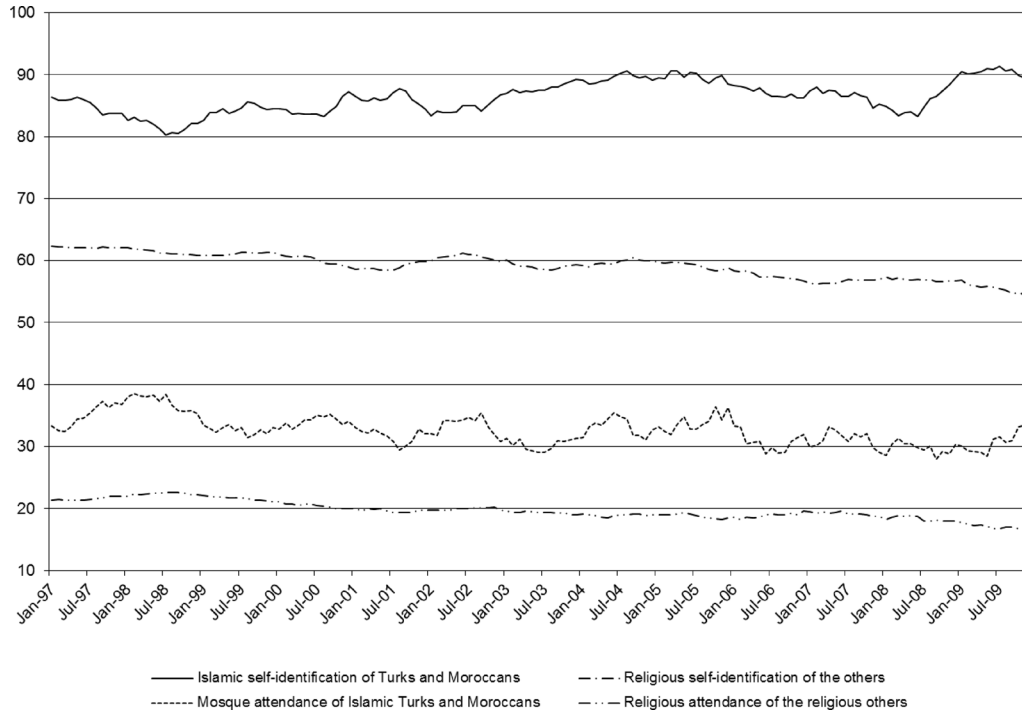
on POLS is lower than the mean of the variable based on Statline. Therefore, for each year we calculated the factor by which the variable based on aggregation should be multiplied to make the mean just as high as the mean on the variable based on Statline, and made this multiplication.

Table 1: Descriptive statistics

		Pooled Dataset			1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
	N	Min.	Max.	*SD*	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Trend
Muslim self-identification	6,394	0	1		.85	.82	.84	.84	.86	.85	.87	.90	.90	.87	.88	.84	.91	+
Mosque attendance	5,450	0	1		.35	.38	.33	.35	.34	.35	.29	.35	.32	.31	.29	.29	.30	−
Municipal % of co-ethnics	6,397	.01	9.74	2.39	3.53	3.59	3.95	3.88	4.40	4.08	4.33	4.25	4.47	4.52	4.86	4.50	5.11	+
Municipal proportion of religious native Dutch	6,397	.00	1.00		.53	.53	.52	.50	.47	.55	.49	.51	.49	.47	.45	.47	.45	−
Municipal church attendance among native Dutch	6,397	0	2.25	.24	.44	.46	.43	.41	.36	.41	.34	.38	.33	.35	.33	.31	.31	−
1 T/M parent (vs. 2)	6,397	0	1		.04	.04	.05	.05	.05	.04	.07	.06	.05	.04	.04	.06	.04	±
Number of inhabitants (log)	6,397	8.92	13.54	1.12	11.73	11.69	11.82	11.75	12.03	11.74	11.80	11.74	11.86	11.97	11.96	11.90	11.95	+
Mosque attacks	6,397	0	1		.15	.07	.06	.01	.03	.14	.21	.17	.46	.42	.21	.17	.09	±
Municipal % anti-immigrant voters	6,397	.00	31.10	6.28	1.41	.76	5.22	9.42	14.37	19.29	6.97	7.37	7.46	7.48	9.87	11.62	14.12	+
Educational level	5,611	0	3	.91	.60	.64	.72	.70	.67	.64	.78	.91	.69	.73	.78	.87	1.11	+
Municipal educational level	6,397	.26	1.58	.14	.80	.82	.83	.85	.86	.84	.87	.89	.92	.95	.96	.98	.99	+
Presence of a co-ethnic mosque	6,397	0	1		.93	.90	.91	.91	.93	.93	.91	.91	.93	.91	.91	.93	.94	±
Household income in 10,000 Euros	3,792	0	30.49	1.36	1.46	1.54	1.67	1.80	1.95	1.99	2.72	2.69	2.74	2.79	3.19	3.46	3.63	+
Weekly 30+ hours on work/study	6,397	0	1		.64	.58	.61	.59	.62	.62	.67	.53	.52	.59	.61	.65	.56	±
Born in Netherlands (vs. abroad)	6,396	0	1		.29	.17	.28	.19	.28	.28	.41	.40	.36	.42	.37	.40	.39	+
Moroccan (vs. Turkish)	6,397	0	1		.40	.41	.42	.41	.39	.41	.38	.41	.42	.42	.44	.45	.42	+
Woman (vs. man)	6,397	0	1	.49	.50	.36	.34	.39	.39	.36	.35	.35	.36	.37	.38	.40	.50	±

Source: Permanent Survey of Living Conditions. Numbers of valid scores are determined before imputation. All other columns are constructed thereafter.

Figure 1
Percentages of our subsample identifying as Muslim and attending mosque and percentages of others identifying as religious and attending a place of worship (moving monthly averages)



Source: Permanent Survey of Living Conditions, 1997–2009.

attendance appear to be almost identical. According to the calculated means, both dependent variables should be highest in 2002, followed by 2001, 2009, 2008, 2007, 2000, 2005, 2006, 2004, 2003, 1999, 1997, and 1998. The difference between the extreme years is 1.3 percent for both dependent variables.

Results

Figure 1, which charts the trends for our subsample and for other inhabitants of the Netherlands, consists of moving monthly averages. For each month, we calculated the mean of the six preceding and six succeeding months.[9]

With regard to Muslim self-identification, we find that in every period of 13 months, at least 80.3 percent of the people with at least one Turkish or Moroccan parent identify as Muslim. At the most, the 13 calendar years differ by 9 percent on this measure. Muslim self-identification was lowest in 1998 (especially during the 13 months around July) and highest in 2009 (especially during the 13 months around July). We mainly see trendless fluctuations, but overall there appears to be a very small increase over the years. Maliepaard (2012), however, found larger percentages of Muslims in every survey year she studied. This difference most likely is due to the fact that she uses surveys specifically designed for immigrants. The general trend she observes, however, is quite similar to ours. She finds a (nonsignificant) decrease until 2004 and an increase until 2006.

[9]For the first and last six months of our research period, there are no six preceding or succeeding months. For these months we calculated the moving average on the basis of less than 13 months.

Mosque attendance appears highest in February 1998 (when 38.5 percent of Turkish and Moroccan Muslims were attending mosque at least once a week) and lowest in September 2008 (when the figure was 27.9 percent). Again we mainly see trendless fluctuations but a general (if small) decrease over the years. So despite the fact that the absolute number of Turkish and Moroccan Muslims grew a little between 1997 and 2009, the religiosity of these Muslims (as measured by mosque attendance) declined a little. Maliepaard (2012) finds a different pattern: she sees a decrease in the mean of her four-category mosque attendance variable between 1998 and 2004 and stability between 2004 and 2006. If we do not dichotomize our mosque attendance variable, we do not see the clear decrease between 1998 and 2004 she sees. In sum, we find limited support for H1, which posits that Muslim self-identification and mosque attendance have decreased in the Netherlands.

In Figure 1 it may also be seen that religious self-identification and worship attendance are clearly lower among the other inhabitants of the Netherlands. The two lines never cross each other, and the difference in self-identification is especially large. Both religious attendance and self-identification are decreasing almost continually for people who are not of Turkish or Moroccan extraction. We thus find support for H2.

In Table 2 and Figures 2 and 3, we present the results of our multivariate regression analyses. We make use of multilevel logistic regression analysis techniques. To investigate the over time differences in the dependent variables and the degree to which the factors we hypothesize about explain these differences, we use year dummies. Instead of presenting the effects of these year dummies in Table 2, we present them visually in Figures 2 and 3.

We expected that people born in the Netherlands would be less religious than people born abroad (H15). Although we find no support for this hypothesis with regard to Muslim self-identification, we find support for H15 in all three of the models we present in Table 2 with regard to mosque attendance. Contrary to what we expected, people born in the Netherlands are more likely to identify as Muslim in two of the three models. In Model 4, the odds of attending mosque at least once a week versus not doing so are $((e^{-.173}-1)\times 100 =)$ 15.9 percent lower for people born abroad. We further expected Moroccans to be more likely to identify as Muslims but less likely to go to mosque than Turks (H16–H17). Indeed, Moroccans have a higher probability of identifying as Muslims and a lower probability of visiting the mosque in every model. The difference between Turks and Moroccans is especially large with regard to Muslim self-identification, though, of course, the majority of Turks in the Netherlands identify as Muslim. The odds of attending mosque every week are between 11.0 and 17.6 percent lower for Moroccans.

We hypothesized that people with only one Turkish- or Moroccan-born parent are less religious than people with two Turkish- or Moroccan-born parents. Every model shows significant effects in the expected direction. Whether someone has ethnically mixed parents especially matters for the probability of identifying as Muslim: the difference in the odds is about 94 percent. For people who identify as Muslim it matters less for their degree of mosque attendance whether they have ethnically mixed parents or not: the difference in odds is about 50 percent. We also find support for our hypothesis about the effect of educational level (H9): in all models in which educational level is taken into account we see significant negative effects. According to Models 2 and 5, an increase of one on the four-point scale increases the odds of identifying as Muslim by 28.1 percent, and the odds of attending mosque at least once a week by 24.0 percent. We find no significant effects of household income (H11). We also took into account whether people spend more or less than 30 hours a week on work or school (H13). The finding that this measure influences mosque attendance but not Muslim self-identification is not surprising because identifying as a Muslim does not require time. In both models, the odds of attending mosque at least once a week is about 22 percent lower for people who spend more than 30 hours a week on work or study. The last individual factor we take into account is gender. We expected men to be more religious than women (H14). We find no difference between the sexes in terms of

Table 2: Multilevel logistic regression analyses of Muslim self-identification and weekly mosque attendance

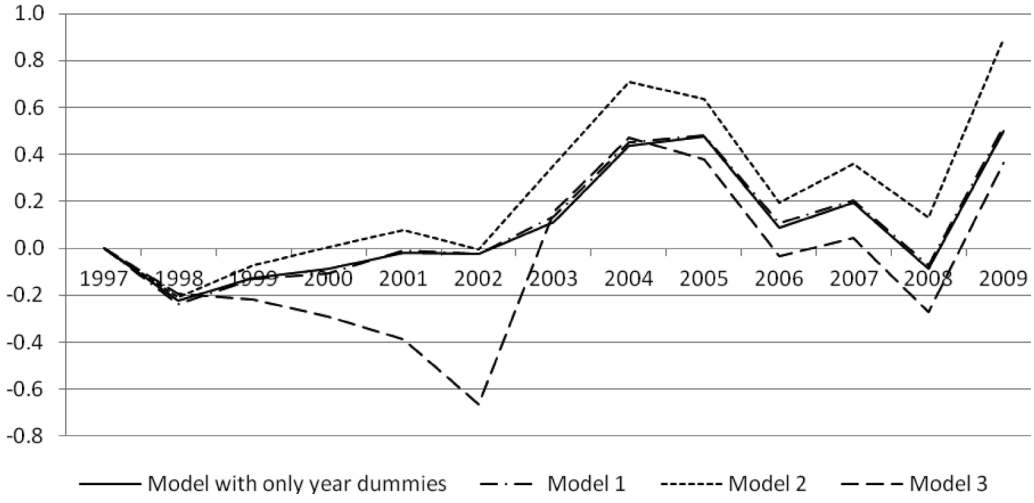
	Model 1		*Model 2*		*Model 3*	
Muslim Self-Identification:	Estimate	*SE*	Estimate	*SE*	Estimate	*SE*
Intercept	1.471**	.142**	1.894	.180	−.121	.985
Individual characteristics						
Born in NL (vs. abroad)	−.129	.082	.313**	.098	.312**	.098
Moroccan (vs. Turkish)	.414**	.083	.523**	.089	.570**	.088
1 Tur/Mor parent (vs. 2)			−2.784**	.143	−2.746**	.143
Educational level			−.330**	.049	−.317**	.050
Household income			−.064	.051	−.063	.052
30+ hours/week work/study			.044	.093	.050	.092
Woman (vs. man)			−.072	.085	−.058	.084
Municipal characteristics						
% of co-ethnics					.073**	.030
Prop. religious native Dutch					1.034**	.352
Number of inhabitants (log)					.076	.090
Mosque attacks					−.003	.145
% of anti-immigrant voters					.037*	.020
Average educational level					.062	.510
Co-ethnic mosque presence					.372*	.165
	Model 4		*Model 5*		*Model 6*	
Mosque Attendance:	Estimate	*SE*	Estimate	*SE*	Estimate	*SE*
Intercept	−.585**	.103	.568**	.133	−.546	.610
Individual characteristics						
Born in NL (vs. abroad)	−.173**	.066	−.255**	.075	−.259**	.075
Moroccan (vs. Turkish)	−.116*	.060	−.193**	.065	−.174**	.066
1 Tur/Mor parent (vs. 2)			−.702**	.246	−.693**	.247
Educational level			−.275**	.043	−.268**	.043
Household income			−.030	.032	−.029	.032
30+ hours/week work/study			−.254**	.091	−.255**	.093
Woman (vs. man)			−1.800**	.079	−1.803**	.080
Municipal characteristics						
% of co-ethnics					.011	.020
Prop. religious native Dutch					.453**	.167
Number of inhabitants (log)					.050	.059
Mosque attacks					−.031	.106
% of anti-immigrant voters					.010	.015
Average educational level					−.134	.388
Co-ethnic mosque presence					.457**	.151

Source: Permanent Survey of Living Conditions. $^{**}p < .01$; $^{*}p < .05$ (one-tailed). Individual and municipal level *N* in models 1–3: 6,394 and 289. Individual and municipal level *N* in models 4–6: 5,448 and 259.

identifying with Islam, but (not surprisingly) the odds of attending mosque at least once a week are 83.5 percent higher for men.

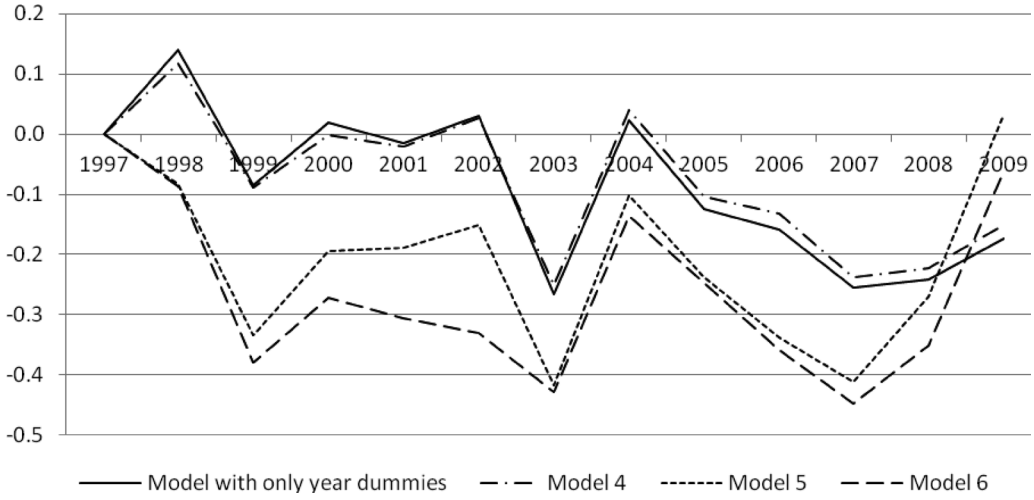
In Models 3 and 6 it may be seen that both dependent variables are significantly affected by the religiosity of the native Dutch inhabitants of the municipality in which one lives, as well as by the presence of a co-ethnic mosque. The municipal percentage of co-ethnics and anti-immigrant

Figure 2
Relative differences between 1997 and other years in Islamic self-identification in four models



Source: Permanent Survey of Living Conditions, 1997–2009.

Figure 3
Relative differences between 1997 and other years in weekly mosque attendance in four models



Source: Permanent Survey of Living Conditions, 1997–2009.

party voters, however, only significantly affect the probability of identifying as a Muslim. All these significant effects are in line with the in H3, H4, H8, and H12 expected directions. With respect to the effect of the percentage of co-ethnics, we find that a 1 percent increase in this percentage increases the odds of identifying as Muslim by 7.6 percent. A 1 percent uptick in the percentage of religious native Dutch people increases the odds of identifying as Muslim versus not doing so by 1.8 percent. An increase of one on our scale (0–3) of church attendance among native Dutch people residing in a respondent's municipality increases the odds of weekly mosque attendance by 57.3 percent. Not surprisingly, the presence of a co-ethnic mosque (H12) appears to influence mosque attendance more strongly than Muslim self-identification. The odds of identifying as Muslim are 45.1 percent higher for people who live in a municipality with a co-ethnic mosque,

and the odds of attending the mosque at least once a week is 57.9 percent higher for the same people. Finally, a 1 percent increase in the percentage of votes for anti-immigrant parties increases the odds of identifying as Muslim by 3.8 percent. Degree of urbanization, mosque attacks, and municipal education level are not related to degree of religiosity.[10]

Now we turn to the extent to which the factors about which we hypothesized in H3–H17 are able to explain over time differences. Figures 2 and 3 present the effects of the year dummies on Muslim self-identification and mosque attendance in four different models. Next to the models we already presented in Table 2, we now also present results of models with only the year dummies.[11]

The continuous line shows the relative differences among years in a model that only takes the year dummies into account. Muslim self-identification declines until 1998, generally rises until 2005, and shows some trendless fluctuations thereafter.[12] Model 1, in which the two variables that partly have a control function are taken into account, nearly shows the same pattern. Differences among years in the percentage of people born in the Netherlands (instead of abroad) and the percentage of people of Turkish (instead of Moroccan) descent are not able to explain the small over time differences in Muslim self-identification.

The pattern changes more after we add parental ethnicity, educational level, household income, available time, and gender—mainly affecting the difference between 2002 and 2003. As seen in the line for Model 2, there is no difference between 1997 and 2002 but a quite large difference between 1997 and 2003. The difference between these two combinations of years ('97–'02 and '97–'03) was smaller in Model 1. Furthermore, the inclusion of these three variables enlarges the difference between 2008 and 2009. The differences between 2002 and 2003 and between 2008 and 2009 thus were (partly) masked in Model 1.

The inclusion of the contextual characteristics primarily influences the difference between 2002 and 2003. While in Model 2 the odds of identifying as Muslim are $((e^{.354+.004}-1)\times 100 =)$ 43.0 percent higher for people interviewed in 2003 than for people interviewed in 2002, in Model 3 the odds are $((e^{.158+.665}-1)\times 100 =)$ 127.7 percent higher for people interviewed in 2003 than for people interviewed in 2002. This means that the difference between 2002 and 2003 was (partly) masked in Model 2. Thus after including the contextual characteristics, the trend in Muslim self-identification between 1998 and 2002 changes from generally upward to generally downward.

To see the extent to which our individual and contextual variables are able to explain over time differences in Muslim self-identification, we added up each difference between two sequencing years for every model. It appears that the more extended the model, the larger this sum. The difference between the model with only the year dummies and Model 1 is very small, as we

[10]We also looked at the effects of education level dummies. For neither of the dependent variables is there a curvilinear effect. We then checked results with a variable measuring mosque attacks in the preceding 32 (rather than 24) months. In this case as well, effects are nonsignificant. Furthermore, excluding the income variable does not change the models in any noteworthy way; the same holds for leaving out mosque attacks.

[11]We also estimated models for both dependent variables in which we only took into account the year dummies, the two variables that have a control function, and one additional variable. For the probability of identifying as a Muslim, we find that seven factors we take into account in these additional analyses enlarge the over time differences we find in the model. These factors include: parental ethnicity, education level, income, municipal religiosity, municipal percentage of anti-immigrant votes, gender, and municipal education level. After taking into account the following factors, over time differences stay the same: available time, urbanization, mosque attacks, and the presence of a co-ethnic mosque. Over time differences are reduced somewhat if the municipal percentage of co-ethnics is taken into account. For the probability of going to mosque at least once a week, we find that education level, available time, and gender enlarge the over time differences we observed in the model with next-year dummies as the only controls. Over time differences stay the same in the models that take these variables into account: parental ethnicity, municipal percentage of co-ethnics, urbanization, mosque attacks, and municipal education level. Income, municipal religiosity, percentage of anti-immigrant votes, and presence of a co-ethnic mosque reduce over time differences.

[12]Differences between the following combinations of years are significant: '97–'04, '97–'05, '97–'09, '98–'03, '98–'04, '98–'05, '98–'07, '98–'09, '99–'04, '99–'05, '99–'09, '00–'04, '00–'05, '00–'09, '01–'04, '01–'05, '01–'09, '02–'04, '02–'05, '02–'09, '04–'08, '05–'08, and '08–'09.

already have seen. We can conclude that in all models the differences among years had partly been masked by variables that are taken into account in the next model. The independent variables we take into account are therefore not able to explain the small over time differences in the period 1997–2009 in Muslim self-identification among people of Turkish and Moroccan descent in the Netherlands.

The continuous line in Figure 3 shows the effects of the year dummies on mosque attendance in a model that takes no other independent variables into account. Through the strong fluctuations, a gradual overall decrease in mosque attendance can be seen.[13] The line representing the differences between 1997 and all the other years in the model that also takes into account the two variables that partly have a control function (Model 4) shows the same pattern. Most differences between combinations of years stay the same or become a bit smaller after taking these two variables into account.

After accounting for the other individual characteristics, the shape of the line changes quite dramatically. Compared to Model 4, especially the differences between the following two combinations of sequencing years change as a consequence of the inclusion of these three variables: 1997 and 1998; and 2008 and 2009. In Model 4, mosque attendance is higher in 1998 than in 1997, while the opposite holds for Model 5. In Model 4, mosque attendance also is higher in 2009 than in 2008, whereas in Model 5 this difference is larger.

The inclusion of the contextual characteristics changes the shape of the trend between 1999 and 2003, especially between 2002 and 2003. According to both models, mosque attendance is higher in 2002 than in 2003, but the difference between the years is very small in Model 6. Thus we may conclude that the contextual characteristics partly explain the difference between these two years.

We again added up each difference between two sequencing years to see how much our individual and contextual variables explain over time differences. We find that differences between the years become a bit smaller after taking into account the two variables that also have a control function. The differences get larger after taking into account the three other individual variables (larger also than in the model with only the year dummies); they get smaller after adding all contextual characteristics (but larger still than in the model with only the year dummies and Model 4).

In sum, we find full support for the hypotheses about the effects of religiosity of the native Dutch inhabitants of the municipality (H4), ethnically heterogamous parents (H5), educational level (H9), presence of a co-ethnic mosque (H12), and being Turkish instead of Moroccan (H16, H17). We find partial support for the hypotheses about the effects of municipal percentage of co-ethnics (H3), municipal percentage of votes for anti-immigrant parties (H8), available time (H13), gender (H14), and being born in the Netherlands (H15). We find little to no support for the hypotheses about the effects of the municipal number of inhabitants (H6), mosque attacks in the municipality (H7), municipal educational level (H10), and income (H11). For the hypothesis about the trend within our subpopulation (H1), we find limited support, and for the hypothesis about the trend among other inhabitants of the Netherlands (H2), we find full support.[14]

Discussion and Conclusion

This article has addressed the following questions: Did Muslim self-identification and frequency of mosque attendance among people of Turkish and Moroccan descent in the Netherlands

[13]Differences between the following combinations of years are significant: '97–'03, '98–'99, '98–'03, '98–'07, '98–'08, '98–'09, '00–'03, '00–'07, '01–'03, '02–'03, '02–'07, and '03–'04.

[14]The trend in monthly mosque attendance is very similar to the trend in weekly mosque attendance. We also see no noteworthy differences between the results of the multivariate analyses.

aged 12+ change in the period 1997–2009 and, if so, to what extent and in which direction? In which way does the trend among this subpopulation differ from the trend among other inhabitants of the Netherlands? To what extent do individual and contextual characteristics that tend to be correlated with religiosity explain over time differences in our subpopulation?

To answer our first and second questions, we mapped the trends among subsamples of people of Turkish/Moroccan origin and other inhabitants of the Netherlands. For our Turkish/Moroccan subpopulation, we expected to see a decrease in religiosity, but we mainly observed trendless fluctuations. Overall, Muslim self-identification seems to increase a little and mosque attendance seems to decrease a little. For other inhabitants of the Netherlands, we expected to see decreasing religiosity, which is exactly what we found. People of Turkish/Moroccan origin have much higher probabilities of identifying as Muslim and going to the mosque every week than other inhabitants of the Netherlands are to identify as religious and to go to a place of worship every week.

Next, we took into account factors that might explain or enlarge the small over time differences in religiosity. We tested hypotheses about the expected effects of these factors on religiosity; we found full or partial support for most of these hypotheses. But why did some of our hypotheses fail? First, contrary to our expectation, higher household income was not related to lower religiosity. Perhaps existential security during childhood is more influential, as Norris and Inglehart (2004) also suggest.

Second, urbanization does not have consequences for religiosity. Only in the analysis of Muslim self-identification in which (next to urbanization) only the year dummies and the two variables that partly have a control function are taken into account is there an effect—and in that case, the effect is positive instead of negative as we hypothesized. This result is not surprising, however, in an analysis that does not control for the presence of co-ethnics and a co-ethnic mosque. One reason for the absence of a negative relationship between urbanization and religion could be that our assumption that social control is less intense for Turks and Moroccans living in cities is incorrect, for example, because we only control for percentage of co-ethnics and not for number of co-ethnics.

A third unexpected finding is that it does not matter for religiosity whether there had been a mosque attack in the municipality of residence in the last two years. We did find partial support for another hypothesis derived from the idea that conflict with other groups strengthens intragroup cohesion: the more votes for anti-immigrant parties in a municipality, the higher the chance that Turkish/Moroccan inhabitants identify as Muslim. A possible explanation for the absence of an effect for mosque attacks is that threat possibly at the same time frightens people. It could well be that some people feel the need to hew closely to their Muslim identity when faced with threat, while others become afraid and avoid the things that apparently are a problem in the eyes of other people (in this case, identification with and practice of Islam). If both mechanisms work at the same time, no effect is found. Because mosque attacks represent a real, concrete danger while votes for anti-immigrant parties are not a concrete danger (yet), fear is a more logical consequence of the former than of the latter.

Fourth, the municipal level of education does not have consequences for Turks' and Moroccans' religiosity. This could mean that our auxiliary assumption that people who live in better-educated municipalities also have more contacts with higher education people is incorrect. It could also mean that contacts with well-educated people have little consequence for the degree to which a person's worldview is scientific. Third, it could mean that a more scientific worldview does not lead to an equally large decrease in religious self-identification and attendance. We think it is a combination of these three potential explanations. Municipalities do not differ very much from each other with respect to average educational level; in addition, people generally group socially according to educational level. This makes the first option plausible. The second option is possible as well. After all, the conversations we have in the course of day-to-day life are not only about things that have a consequence for one's worldview. Since we find negative effects of people's own educational level, the third option does not seem to be likely. However, it

is not inconceivable that for the group we study, religious beliefs have a small impact on religious self-identification and attendance. After all, social control may be quite intense because of the cohesiveness of the Turkish and Moroccan group in the Netherlands. Therefore it could be too large a step to state that you are not Muslim anymore and stop participating in religious practices. Since the degree to which a person's worldview is scientific seems primarily to influence religious beliefs, and since the relationship between beliefs and self-identification and attendance could be relatively loose for the group we study, it could be difficult to find significant effects.

Now we turn to our last research question: the extent to which the factors we hypothesized about are able to explain or enlarge over time differences in religiosity. We find that the small over time differences in Muslim self-identification are larger than they seem to be at first sight. Almost all the factors we hypothesize about enlarge the effects of year dummies on Muslim self-identification once we take them into account. We also see that the more factors we take into account, the larger the effects of the year dummies. For mosque attendance, we see small reductions of the over time differences after including the two variables that also have a control function. This might indicate that some differences across years are due to differences that already existed at the time the people interviewed in the different years entered the Netherlands. We also find that taking the other individual characteristics into account enlarges the effects of the year dummies, and taking into account the contextual characteristics reduces the effects of the year dummies.

A first limitation of this study is that we were not able to trace people with two Dutch-born parents and four Turkish- or Moroccan-born grandparents. Already around 1970, the first Turks and Moroccans of the second generation were born; in the meantime, the third generation emerged. Although we are not able to trace the third generation and thus do consider them as not belonging to our subpopulation of interest, norms regarding Muslim religiosity are likely to remain relatively positive in their familial environment. We are also unable to trace third-generation Turks and Moroccans in our contextual data. As a consequence, we probably see a weaker increase in the municipal number of co-ethnics than if we had been able to take the third generation into account in our municipal figures. Third-generation Turks and Moroccans probably support Muslim religiosity more than people who only have native Dutch grandparents. The fact that many people with at least one Turkish- or Moroccan-born parent who live in the Netherlands marry someone born and raised in Turkey or Morocco makes these problems less severe. Before 2004 (when rules for marriage migration were strengthened), 60–75 percent of the Turks and Moroccans who wed each year were married to someone born and raised in Turkey or Morocco (Dagevos, Gijsberts, and Van Praag 2003; Hooghiemstra 2003; Statistics Netherlands 2010).

A second possibility for future studies is conducting dynamic research. We simply do not know how many individual changes underlie the changes we see on the group level. It could be the case that nobody changes at the individual level, but instead that the composition of the group is altered by demographic change (migration, fertility, mortality). Furthermore, two persons who change in opposite directions result in apparent stability in the aggregate. Dynamic research also would make clearer the extent to which X influences Y as opposed to Y influencing X.

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